

U.S. PTO Customer No. 25280

Case No.: 5048

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims in the application:

1. (Currently amended) A thermal textile comprising:
at least one non-conducting yarn;
at least one positive temperature coefficient (PTC) yarn, said PTC yarn having a core yarn and a positive temperature coefficient of resistance (PTCR) sheath, the PTCR sheath including distinct electrical conductors intermixed within a thermally expansive matrix, wherein the thermally expansive matrix has a higher coefficient of expansion than the distinct electrical conductors, wherein the sheath is coated or extruded onto the core,
and wherein said core yarn comprises nonconductive multifilaments or staple fibers;
said non-conductive yarn and said PTC yarn being combined into a heating fabric.
2. (Original) The thermal textile according to claim 1, wherein said heating fabric is a woven fabric.
3. (Original) The thermal textile according to claim 1, wherein said heating fabric is a knitted fabric.
4. (Previously presented) The thermal textile according to claim 3, wherein said PTC yarn forms loops of said knitted fabric.
5. (Previously presented) The thermal textile according to claim 3, wherein said PTC yarn is laid into loops of said non-conductive yarn.
6. (Original) The thermal textile according to claim 1, further including at least one conductive lead electrically connecting to said PTC yarn.
7. (Original) The thermal textile according to claim 6, wherein said lead comprises a conductive yarn and wherein said conductive yarn forms loops of said knitted fabric.

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8. (Original) The thermal textile according to claim 6, wherein said lead is laid into loops of said non-conductive yarn.
9. (Previously presented) The thermal textile according to claim 1, wherein the sheath comprises a polymer selected from the group consisting of polyethylene, halo-derivatives of polyethylene, ethylene ethylacrylate, and polyolefin.
10. (Previously presented) The thermal textile according to claim 1, wherein the PTCR sheath is cross-linked.
11. (Previously presented) The thermal textile according to claim 1, wherein the PTCR sheath comprises a thermoset polymer.
12. (Previously presented) The thermal textile according to claim 1, wherein the PTCR sheath will cut off conductivity of the PTCR sheath at a selected temperature.